

adhesion of a connecting pad electrode and the like. Note that the above effects can be obtained by setting the linear expansion coefficient of the peripheral region plastic substrate to be about $\frac{2}{3}$ or less that of the pixel region plastic substrate.

[0150] Although the pixel region plastic substrate must be transparent, the properties of organic resin make it difficult to obtain a plastic substrate having a small linear expansion coefficient such as that of inorganic glass. Hence, a plastic substrate having a large linear expansion coefficient as described above is used.

[0151] Since the linear expansion coefficient of the peripheral region plastic substrate is small, about $\frac{2}{3}$ or less that of the pixel region plastic substrate, the linear expansion coefficients of the plastic substrate and thin glass layer are close in this peripheral region. Accordingly, the degree of expansion and contraction of this peripheral region plastic substrate when the temperature changes while the display device is in use approaches that of the thin glass layer, so no stress is applied to the thin glass layer. This raises the strength of the display device. Also, the peripheral region does not easily expand or contract even when temporarily heated and bonded by thermal compression bonding to a connecting pad electrode 110 formed in this peripheral region.

[0152] (Third Embodiment)

[0153] An active matrix type display device of the third embodiment has the characteristic features of both the first and second embodiments. That is, as shown in **FIGS. 17A and 17B**, an adhesion layer between a plastic substrate and thin glass layer is separated into a pixel region adhesion layer 1002 and peripheral region adhesion layer 1001. In addition, the glass transition temperature of the pixel region adhesion layer 1002 is 30° C. (inclusive) to 80° C. (inclusive), and the glass transition temperature of the peripheral region adhesion layer 1001 is higher by 10° C. or more than that of the pixel region adhesion layer 1002, and is 80° C. (exclusive) to 200° C. (inclusive).

[0154] Also, a plastic substrate is separated into a pixel region plastic substrate 1102 and a peripheral region plastic substrate 1101 formed around the pixel region plastic substrate 1102. The linear expansion coefficient of the pixel region plastic substrate 1102 is 30 ppm/° C. (inclusive) to 300 ppm/° C. (inclusive). The linear expansion coefficient of the peripheral region plastic substrate 1101 is about 1 ppm/° C. (inclusive) to 30 ppm/° C. (exclusive), which is about $\frac{2}{3}$ or less that of the pixel region plastic substrate 1102. Furthermore, a slight spacing is formed between the pixel region plastic substrate 1102 and the peripheral region plastic substrate 1101.

[0155] With this construction, the effects of both the first and second embodiments can be obtained. In addition, the materials and characteristics of both the adhesion layer and plastic substrate can be selected in the pixel region and peripheral region independently of each other. This can maintain the element characteristics more preferably and maintain the strength of the thin glass layer.

[0156] (Fourth Embodiment)

[0157] An active matrix type display device of the fourth embodiment is a modification of the second embodiment. As

shown in **FIG. 18**, a portion of a peripheral region plastic substrate 1103 covers a pixel region plastic substrate 1104 to form an overlapping portion.

[0158] More specifically, the linear expansion coefficient of the pixel region plastic substrate is 30 ppm/° C. (inclusive) to 300 ppm/° C. (inclusive), and the linear expansion coefficient of the peripheral region plastic substrate is about 1 ppm/° C. (inclusive) to 30 ppm/° C. (exclusive), which is about $\frac{2}{3}$ or less that of the pixel region plastic substrate.

[0159] Even in this embodiment, the effects of the second embodiment can be obtained. Also, the whole of a thin glass layer can be reinforced because there is no spacing between the pixel region plastic substrate 1104 and peripheral region plastic substrate 1103.

[0160] (Fifth Embodiment)

[0161] An active matrix display device of the fifth embodiment shown in **FIG. 19** has the characteristic features of both the first and fourth embodiments. That is, an adhesion layer between a plastic substrate and thin glass layer is separated into a pixel region adhesion layer 1102 having a glass transition temperature of 30° C. (inclusive) to 80° C. (inclusive), and a peripheral region adhesion layer 1101 having a glass transition temperature which is higher by 10° C. or more than that of the pixel region adhesion layer and is 80° C. (exclusive) to 200° C. (inclusive).

[0162] Also, the plastic substrate is separated into a pixel region plastic substrate 1104 having a linear expansion coefficient of 30 ppm/° C. (inclusive) to 300 ppm/° C. (inclusive), and a peripheral region plastic substrate 1103 formed around the pixel region plastic substrate 1104 and having a linear expansion coefficient of 1 ppm/° C. (inclusive) to 30 ppm/° C. (exclusive) which is about $\frac{2}{3}$ or less that of the pixel region plastic substrate. A portion of the peripheral region plastic substrate 1103 covers the pixel region plastic substrate 1104 to form an overlapping portion.

[0163] With this construction, the effects of both the first and fourth embodiments can be obtained. Furthermore, the materials and characteristics of both the adhesion layer and plastic substrate can be selected in the pixel region and peripheral region independently of each other. This can maintain the element characteristics more preferably and maintain the strength of the thin glass layer.

[0164] (Sixth Embodiment)

[0165] As shown in **FIGS. 20A and 20B**, an active matrix type display device of the sixth embodiment differs from the first embodiment in that a substrate on which a common electrode 205 is formed comprises only a plastic substrate 501 with no thin glass layer. This configuration can reduce the number of manufacturing steps and can also reduce readily breakable regions, in addition to the effects of the first embodiment.

[0166] A method of manufacturing the active matrix type display device of this embodiment will be explained below with reference to **FIGS. 21 to 29A and 29B**.

[0167] As in the first embodiment, an element circuit region 102 and connecting pad electrode 110 are formed on a first non-alkaline glass substrate 201. After that, as shown in **FIG. 21**, this first non-alkaline glass substrate 201 having the element circuit region 102 and connecting pad electrode